

IN THE SPECIFICATION

On page 1, please replace lines 1-5 with the following:

The invention relates to a high frequency component with a substrate constructed of a plurality of dielectric layers and, between them, electrode layers having conducting tracks, ~~in which~~ the substrate having at least one capacitive element and at least one inductive element is formed. High frequency components of this type are used in wireless circuits.

On page 2, please replace lines 6-12 with the following:

Bandpass filters are needed for almost every microwave application. In particular, narrow band transmitting and receiving circuits, such as are used in mobile radio systems, require bandpass filters in order to suppress all interference signals found outside the frequency band used. Many such passive bandpass filters are based on a similar principle as the aforementioned comb filter and, like these, comprise coupled resonators. If, therefore, improvements can be achieved in the resonators or in their coupling, then these allow themselves to be transferred to ~~very~~ many filter types.

On page 3, lines 19-34 and page 4, lines 1-4, please replace with the following:

With the invention, a resonator may be realized if in at least one arrangement of opposing conductor structures, the start of a conductor structure is placed at the same potential as the end of the opposing conducting track structure. The start and end are found if a direction is specified on the first conductor structure, e.g. the current path, and this is then adopted on the opposing conducting track. The potential may be fixed, in particular, equal to earth. The arrangement then resembles a short-circuited capacitor. Or ~~it~~ the arrangement is floating, whereby the arrangement resembles an open coil. If, in the coil-like arrangement, a still free end is connected to earth or a fixed potential, the resonant frequency may be further reduced. By this means, resonators may be realized which are substantially smaller than a

quarter-wavelength ($\lambda/4$) and in which inductance and capacitance are provided by the same conductor structures. The different common-mode and push-pull impedance ensure, together with the edge conditions, for different amplitudes and a mixture of common-mode and push-pull operation for the reflections at the end of the lines. After two reflections, the phase jump at the lowest resonant frequency is greater than π . The conductor length is therefore shorter than $\lambda/4$, in order to bring the overall phase shift for a cycle to the resonance condition 2π . In order to avoid radiation, an earthed surface should be provided on at least one side of the opposing conducting track structures. Two earthed surfaces provide even better screening. The losses are lowest for a symmetrical sequence of dielectrics if the resonator is arranged centrally between the earthed surfaces. The storage of the magnetic energy is further improved if the resonator is surrounded with magnetic materials, such as ferrites.

On page 4, lines 26-34 and page 5, lines 1-4, please replace with the following:

For many planar structures, to a good approximation, the inductance L and the capacitance C are proportional to the areas A_L and A_C ~~which assume them~~. The resonant frequency is ~~laid down by the~~ a product of L and C . Minimizing of the total area

$$A_{\text{tot}} = A_C + A_L$$

with the subsidiary condition

$$A_C \cdot A_L = \text{constant}$$

then leads to

$$A_{\text{tot}} = \text{minimum when } A_C = A_L$$

On page 10, please replace lines 4-15 with the following:

FIGS. 12a and 12b show simple measures as to how the coupling between conducting track structures may be strengthened. The bridge 90 in FIG. 12a and the common conducting track member 92 in FIG. 12b act like an amplified magnetic coupling between the conducting track members 93 and 94 or 95 and 96, respectively. A simple adjustment of the coupling strength may be achieved by displacing the bridge without having greatly to change

the remainder of the circuit. Given identical coupling, the conductors according to FIG. 12a or FIG. 12b may therefore have larger separations or be shorter. In the case of small separations, the coupling depends, according to the prior art, very strongly on the precision during production, whilst the position of a bridge may be very precisely specified. In the case of longer conducting track structures also, which may not be regarded as more than coils, the magnetic coupling is increased if, close to the foot, a bridge 90 or a common conducting track member 92 is introduced. This is particularly meaningful for broadband applications or for applications on thin substrates.

On page 10, please replace lines 16-21 with the following:

The bandpass filter illustrated in FIG. 13 is formed by two resonators 110, 112 according to FIG. 2, which are compensated according to FIG. 11 against offsets and are connected to earth 115 at their end. The conducting track member 114 amplifies the magnetic coupling between the parallel-arranged conducting tracks 113. In addition, the capacitor 118 couples the resonators. The coupling of the infeed lines 122, 124 to the resonators takes place capacitively 116 and directly, respectively. The conductor structure 120 forms an end capacitor linked to earth, which reduces the resonant frequency.

On page 7, please replace lines 26-34 with the following:

The resonator shown in FIG. 1 comprises two conducting track sections 10, 12, which oppose each other. In their overlap region, in the actual design there is arranged a thin dielectric layer, although this is not shown in FIG. 1. The larger the dielectric constant is, the smaller the resonator may be built. The dielectric constant ϵ is therefore preferably larger than 5. Actual embodiments also include materials with dielectric constants $\epsilon > 17$ or even materials with a dielectric constant $\epsilon > 70$. The thickness d of the dielectric layer is smaller than half the width b (e.g., one fifth the width b) of a conducting track member 10 or 12. The beginning 16 of the conducting track member 12 is connected to ground, as is the end 18 of the conducting track member 10.